

1 VI. CLAIMS

2 WHAT IS CLAIMED IS:

3 1. A method of product development and commercialization comprising:

4 (a) determining customer requirements for a product;

5 (b) determining the return on investment of developing said product per  
6 said customer requirements;

7 (c) setting final requirements;

8 (d) approving said final requirements;

9 (e) selecting a base technology;

10 (f) modifying said base technology to meet said final requirements;

11 (g) approving said base technology selection and said modifications;

12 (h) testing said modified base technology to verify it meets said final  
13 requirements;

14 (i) approving said testing of said modified base technology;

15 (j) checking compliance with at least a portion of the relevant laws and  
16 regulations of at least a portion of the jurisdictions where the modified  
17 base technology will be made, transported, or sold;

18 (k) approving said assurance of compliance; and

- 1 (l) manufacturing/commercializing said modified base technology.
- 2 2. The method of claim 1 further comprising storing all data entered, retrieved,  
3 processed, created, stored, or modified in one or more central or distributed  
4 mutually accessible databases.
- 5 3. The method of claim 1 further comprising sending an electronic mail  
6 notification to a participant in the method or an interested person upon  
7 completion of one of the steps of the method.
- 8 4. The method of claim 2, wherein all participants in the method and  
9 authorized persons may access at least a portion of said database.
- 10 5. The method of claim 4, wherein said access includes a plurality of  
11 pre-defined views, thereby permitting quick information sorting.
- 12 6. The method of claim 4, wherein said access to said database is available  
13 globally from any personal computer having installed thereon a client  
14 application configured to perform database management system functions  
15 with said database and having a network connection configured to allow  
16 communication between said client application and said database.
- 17 7. The method of claim 1, wherein the steps are performed sequentially such  
18 that a later step is not performed until all earlier steps are completed.
- 19 8. The method of claim 7, further comprising locking at least a portion of said  
20 steps prior to the completion of all earlier steps and unlocking said steps  
21 upon completion of all earlier steps, thereby preventing entering a step out  
22 of order without authorization.

- 1 9. The method of claim 1, further comprising locking at least a portion of said  
2 steps after their completion, thereby preventing revision of said steps  
3 without authorization.
- 4 10. The method of claim 1, further comprising terminating the method at any  
5 step, wherein said termination prevents further revision of any step in the  
6 method.
- 7 11. The method of claim 1 further comprising a step to maintain version control  
8 of said approved final requirements in step (d), said approved base  
9 technology selection and modifications in step (g), or said approved  
10 qualification of modified base technology in step (i).
- 11 12. The method of claim 1, further comprising sending an electronic mail  
12 notification to a participant in the method or an interested person upon  
13 completion of one of the steps of the method.
- 14 13. The method of claim 1, further comprising recording in said database action  
15 items for completing one or more steps of the method, electronically  
16 notifying the responsible persons of said actions items, and tracking  
17 completion of said action items.
- 18 14. The method of claim 1, wherein one or more of said steps is at least in part  
19 completed by selecting items from a menu, list box, drop down list, or other  
20 selection device available in a personal computer graphical user interface,  
21 thereby reducing typing time and errors.
- 22 15. The method of claim 1, further comprising plotting the actual versus  
23 planned progress of said steps on a timeline, for measuring and improving  
24 performance and productivity of practicing said method.

- 1 16. A method of product development and commercialization comprising:
- 2 (a) determining customer requirements for a product;
- 3 (b) storing said requirements in a computer readable database;
- 4 (c) determining the return on investment of developing said product per
- 5 said customer requirements;
- 6 (d) storing said return on investment in said computer readable database;
- 7 (e) setting final requirements;
- 8 (f) storing said final requirements in said computer readable database;
- 9 (g) approving said final requirements;
- 10 (h) storing said approval in said computer readable database;
- 11 (i) selecting a base technology;
- 12 (j) storing said selection in said computer readable database;
- 13 (k) modifying said base technology to meet said final requirements;
- 14 (l) storing information of said modification in said computer readable
- 15 database;
- 16 (m) approving said base technology selection and said modifications;
- 17 (n) storing said approval in said computer readable database;

- 1 (o) testing said modified base technology to verify it meets said final  
2 requirements;
- 3 (p) storing information from said testing in said computer readable  
4 database;
- 5 (q) approving said testing of said modified base technology;
- 6 (r) storing said approval in said computer readable database;
- 7 (s) checking compliance with at least a portion of the relevant laws and  
8 regulations of at least a portion of the jurisdictions where the modified  
9 base technology will be made, transported, or sold;
- 10 (t) approving said checking of compliance;
- 11 (u) storing said approval in said computer readable database; and
- 12 (v) commercializing said modified base technology; and
- 13 (w) approving said commercialization and thereby locking all steps of said  
14 method, thereby preventing any further revision of said steps.
- 15 17. The method of claim 16, further comprising storing all data entered,  
16 retrieved, processed, created, stored, or modified in one or more central or  
17 distributed mutually accessible databases.
- 18 18. The method of claim 16, wherein said access to said database is available  
19 globally from any personal computer having suitable client software  
20 installed and suitable network connectivity.

- 1 19. The method of claim 16, wherein all participants in the method and  
2 authorized persons may access at least a portion of said database, and the  
3 graphical user interface presented matches the person's type of database  
4 access.
- 5 20. The method of claim 16, wherein said access includes a plurality of  
6 pre-defined views, thereby permitting quick information sorting and  
7 searching.
- 8 21. The method of claim 16, wherein the steps are performed sequentially such  
9 that a later step is not performed until all earlier steps are completed.
- 10 22. The method of claim 21, further comprising locking at least a portion of said  
11 steps prior to the completion of all earlier steps and unlocking said steps  
12 upon completion of all earlier steps, thereby preventing entering a step out  
13 of order without authorization.
- 14 23. The method of claim 16, further comprising locking at least a portion of said  
15 steps after their completion, thereby preventing revision of said steps  
16 without authorization.
- 17 24. The method of claim 16, further comprising maintaining version control of  
18 approved final requirements, approved base technology selection and  
19 modifications, or approved qualification of modified base technology.
- 20 25. The method of claim 16, further comprising terminating the method at any  
21 step, wherein said termination prevents further revision of any step in the  
22 method.

- 1 26. The method of claim 16, further comprising during any step sending an  
2 electronic mail notification to a participant in the method or an interested  
3 person.
- 4 27. The method of claim 16, further comprising automatically sending e-mail  
5 notification to participants when any approval step is performed.
- 6 28. The method of claim 16, further comprising recording in said database  
7 action items for completing one or more steps of the method, electronically  
8 notifying the responsible persons of said actions items, and tracking  
9 completion of said action items.
- 10 29. The method of claim 16, further comprising preventing said approval step (t)  
11 from being performed while any action items are incomplete.
- 12 30. The method of claim 29, wherein upon a termination of an instance of said  
13 method having incomplete action items results in sending an automatic  
14 electronic mail notification of said termination and the respective incomplete  
15 action item to each respective participant responsible for each respective  
16 incomplete action item.
- 17 31. The method of claim 16, wherein one or more of said steps is at least in  
18 part completed by selecting items from a menu, list box, drop down list, or  
19 other selection device available in a personal computer graphical user  
20 interface, thereby reducing typing time and errors.
- 21 32. The method of claim 16, wherein database users can enter new items in  
22 menus, list boxes, drop down lists or other selection devices after which  
23 these new items become part of the selection lists for instances of said  
24 method.

- 1 33. The method of claim 16, wherein at least a portion of said steps comprise  
2 copying template forms that are stored in the database thereby insuring  
3 data consistency,
- 4 34. The method of claim 33, wherein said template forms are revisable at any  
5 time by authorized administrators and wherein upon said revision the  
6 template forms become immediately available for use by future instances of  
7 said method.
- 8 35. The method of claim 16, wherein reference forms are stored in the  
9 database and are made available to users thereby providing assistance in  
10 completing said steps.
- 11 36. The method of claim 35, wherein said reference forms are revisable at any  
12 time by authorized administrators and wherein upon said revision the  
13 reference forms become immediately available for use by future instances  
14 of said method.
- 15 37. The method of claim 16, wherein administration of the database comprises  
16 providing, changing or revoking user access, maintaining items in various  
17 selection lists, maintaining template forms, reference forms and help forms,  
18 and wherein said administration is performed only by authorized persons
- 19 38. The method of claim 37, further comprising performing said administration  
20 in a graphical user interface and wherein said administration does not  
21 require knowledge of computing languages.
- 22 39. A method of product development comprising:
- 23 (a) determining customer requirements for a product;

- 1 (b) storing said requirements in a computer readable database;
- 2 (c) evaluating economics of developing said product per said customer  
3 requirements;
- 4 (d) storing said evaluation in said computer readable database;
- 5 (e) selecting a base technology;
- 6 (f) storing said selection in said computer readable database;
- 7 (g) determining modifications needed of said base technology to meet  
8 said final requirements;
- 9 (h) storing information of said determination in said computer readable  
10 database; and
- 11 (i) testing said determination to verify it meets said final requirements;  
12 and
- 13 (j) storing details and results of said testing in said computer readable  
14 database.
- 15 40. The method of claim 39, further comprising after said storing step (j), a step  
16 for commercializing said modifying base technology.
- 17 41. The method of claim 39, further comprising storing all data entered,  
18 retrieved, processed, created, stored, or modified in one or more central or  
19 distributed databases.

- 1 42. The method of claim 39, wherein access to said database is available  
2 globally from any personal computer having suitable client software  
3 installed and suitable network connectivity.
- 4 43. The method of claim 39, wherein all participants in the method and  
5 authorized persons may access at least a portion of said database, and the  
6 graphical user interface presented matches the person's type of database  
7 access.
- 8 44. The method of claim 39, wherein said access includes a plurality of  
9 pre-defined views.
- 10 45. The method of claim 39, wherein the steps are performed in sequentially  
11 such that a later step is not performed until all earlier steps are completed.
- 12 46. The method of claim 45, further comprising locking at least a portion of said  
13 steps prior to the completion of all earlier steps and unlocking said steps  
14 upon completion of all earlier steps, thereby preventing entering a step out  
15 of order without authorization.
- 16 47. The method of claim 39, further comprising locking at least a portion of said  
17 steps after their completion, thereby preventing revision of said steps  
18 without authorization.
- 19 48. The method of claim 39, further comprising terminating the method at any  
20 step, wherein said termination prevents further revision of any step in the  
21 method.

- 1 49. The method of claim 39, further comprising during any step sending an  
2 electronic mail notification to a participant in the method or an interested  
3 person.
- 4 50. The method of claim 39, further comprising automatically sending e-mail  
5 notification to participants when any approval step is performed.
- 6 51. The method of claim 39, further comprising recording in said database  
7 action items for completing one or more steps of the method, electronically  
8 notifying the responsible persons of said actions items, and tracking  
9 completion of said action items.
- 10 52. The method of claim 39, further comprising preventing said approval step (t)  
11 from being performed while any action items are incomplete.
- 12 53. The method of claim 39, wherein upon a termination of an instance of said  
13 method having incomplete action items results in sending an automatic  
14 electronic mail notification of said termination and the respective incomplete  
15 action item to each respective participant responsible for each respective  
16 incomplete action item.
- 17 54. The method of claim 39, wherein administration of the database comprises  
18 providing, changing or revoking user access, maintaining items in various  
19 selection lists, maintaining template forms, reference forms and help forms,  
20 and wherein said administration is performed only by authorized persons
- 21 55. The method of claim 54, further comprising performing said administration  
22 in a graphical user interface and wherein said administration does not  
23 require knowledge of computing languages.

- 1     56. A method of product development comprising:
- 2            (a) determining customer requirements for a product;
- 3            (b) storing said requirements in a computer readable database;
- 4            (c) determining if base technology modifications are needed to meet said
- 5            customer requirements;
- 6            (d) if base technology modifications are needed to meet said customer
- 7            requirements, then said method further comprises:
- 8                    (1) selecting a base technology;
- 9                    (2) storing said selection in said computer readable database;
- 10                  (3) determining modifications needed of said base technology to
- 11                  meet said final requirements;
- 12                  (4) storing information of said determination in said computer
- 13                  readable database; and
- 14                  (5) if the cost of said modification exceeds a predetermined amount,
- 15                  then said method further comprises:
- 16                          (a) evaluating economics of developing said product per said
- 17                          customer requirements;
- 18                          (b) storing said evaluation in said computer readable database;

1 (c) qualifying said determination of modifications to verify it  
2 meets said final requirements;

3 (d) storing said qualification in said computer readable  
4 database; and

5 (e) manufacturing/commercializing said modified base  
6 technology.

7 57. The method of claim 56, wherein said access to said database is available  
8 globally from any personal computer having suitable client software  
9 installed and suitable network connectivity.

10 58. The method of claim 56, wherein all participants in the method and  
11 authorized persons may access at least a portion of said database, and the  
12 graphical user interface presented matches the person's type of database  
13 access.

14 59. The method of claim 56, further comprising locking at least a portion of said  
15 steps prior to the completion of all earlier steps and unlocking said steps  
16 upon completion of all earlier steps, thereby preventing entering a step out  
17 of order without authorization.

18 60. The method of claim 56, further comprising during any step sending an  
19 electronic mail notification to a participant in the method or an interested  
20 person.

21 61. The method of claim 56, further comprising recording in said database  
22 action items for completing one or more steps of the method, electronically

1 notifying the responsible persons of said actions items, and tracking  
2 completion of said action items.

3 62. The method of claim 56, wherein upon a termination of an instance of said  
4 method having incomplete action items results in sending an automatic  
5 electronic mail notification of said termination and the respective incomplete  
6 action item to each respective participant responsible for each respective  
7 incomplete action item.

8 63. The method of claim 16, wherein one or more of said steps is at least in  
9 part completed by selecting items from a menu, list box, drop down list, or  
10 other selection device available in a personal computer graphical user  
11 interface, thereby reducing typing time and errors.

12 64. The method of claim 56, wherein administration of the database comprises  
13 providing, changing or revoking user access, maintaining items in various  
14 selection lists, maintaining template forms, reference forms and help forms,  
15 and wherein said administration is performed only by authorized persons

16 65. The method of claim 64, further comprising performing said administration  
17 in a graphical user interface and wherein said administration does not  
18 require knowledge of computing languages.

19 66. A product development and commercialization management information  
20 system, said system comprising:

21 (a) means for storing, retrieving, searching, modifying, and reporting  
22 customer requirements for a product;

1 (b) means for storing, retrieving, searching, modifying, and reporting an  
2 evaluation of the economics of developing said product per said  
3 customer requirements;

4 (c) means for storing, retrieving, searching, modifying, and reporting a  
5 selection of a base technology;

6 (d) means for storing, retrieving, searching, modifying, and reporting a  
7 determination of modifications needed of said base technology to  
8 meet said final requirements; and

9 (e) means for storing, retrieving, searching, modifying, and reporting  
10 testing details and results of said determination to verify it meets said  
11 final requirements.

12 67. A product development and commercialization management information  
13 system comprising:

14 (a) a collaborative work space, wherein multiple participants can  
15 individually and jointly work on a project:

16 (1) configured at least partially automating workflow of product  
17 development and commercialization projects from determining  
18 customer requirements and financial analysis of project viability,  
19 through determining a base technology, determining any needed  
20 modifications of said base technology, and testing said modified  
21 base technology to verify compliance with customer  
22 requirements, and configured for adding/changing the  
23 participants in a project;

- 1 (2) configured for assigning, tracking and providing notification of  
2 tasks relating to a product development project or group of  
3 projects;
- 4 (3) configured for providing a collaborative work space comprising a  
5 secure/searchable communication repository linked to product  
6 development projects or logical grouping of projects and their  
7 tasks, for communications with and between project participants  
8 and customers, configured for recording, channeling, and  
9 archiving said communications;
- 10 (4) configured for financial tracking and/or forecasting for a project  
11 or a logical grouping of projects;
- 12 (5) configured for importing lab data;
- 13 (6) configured for providing a secure and searchable document  
14 repository linked to projects or logical groupings of projects,  
15 wherein said documents are in final format; and
- 16 (b) a database:
- 17 (1) configured for storing a product development project's history  
18 and details, said history and details comprising the types of data,  
19 time schedules, status of all steps in the project, contact  
20 information, results of all steps in the project, and documents  
21 and information supporting all steps in the project; and  
22
- 23 (2) configured for searching said stored history and details and for  
24 generating reports from same;

1 (c) a network for connecting said collaborative workspace and database;  
2 and

3 (d) means for providing for different levels of secure access for different  
4 users.

5 68. The system of claim 67, wherein said network comprises the Internet.

6 69. The system of claim 67, wherein said collaborative workspace comprises a  
7 client application comprising a web browser.